

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Peppel, Tyler

Docket No.: OOMP0001C

Serial Number: 09/735,586

Group Art Unit: 2132

Filed: 12/12/2000

Examiner: Lanier, Benjamin

Title: ELECTRONIC TRADING CARD

April 19, 2007

MAIL STOP AMENDMENT
Commissioner for Patents
PO BOX 1450
Alexandria VA 22313-1450

DECLARATION OF TYLER PEPPEL UNDER 37 CFR § 1.131

1. My name is Tyler Peppel. I am the inventor of the invention claimed in the subject patent application.
2. Claims 1-7, 9, and 25-35 of my application stand rejected under 35 USC 102 (e) as being anticipated by Smith (USPN 5,533,124); Claim 8 stands rejected under 35 USC 103 (a) as being obvious over the combination of Smith and Cooper (USPN 5,757,907); and Claims 11 and 12 stand rejected under 35 USC 103 (a) as being obvious over the combination of Smith and Welsh (USPN 4,970,666).
3. Smith issued on 2 July 1996 and was filed on 7 December 1994. Smith does not claim the same invention as that claimed in my application.

4. The subject patent application is based on an application, and claims priority to an application, filed on 6 March 1995, less than one year after Smith was filed. That is, the present application is a continuation of serial number 08/398,862, which was filed 6 March 1995.

5. The invention which is the subject matter of the application was conceived at least as early as 7 September 1994.

6. I requested that my attorney perform a search in my invention on 11/28/94.

7. I met with my attorney, Michael A. Glenn, at least as early as 1/4/95 to discuss preparation of a patent application for the subject invention. The interval between 2 December 1994 and 4 January 1995 was spent reviewing the search results and in preparation for my meeting with my patent attorney.

8. I was interviewed by my attorney on 1/22/95. The interval between 4 January 1995 and 22 January 1995 was spent in preparation for my meeting with my attorney and in continued work on my invention.

9. Attached hereto as an exhibit is a document entitled "The World of E-Card." The document bears the legend "Confidential © 1994 Oompala," and provided the basis for preparation of the subject application. The document was prepared before the 7 December 1994 filing date of the Smith patent.

10. Also attached hereto as an Exhibit is a memorandum dated 9 November 1994. The memorandum clearly describes the subject matter of my invention, *i.e.* E-Card. The document was also prepared before the 7 December 1994 filing date of the Smith patent.

11. Also attached is a letter to M. Patricia Thayer dated 2 December 1994, which provides the results of a patentability search on the subject invention, as performed by Lawrence E. Laubschire, Jr. in response to Ms. Thayer's telefax search request of 28 November 1994 (referenced in the letter). This document was also prepared before the 7 December 1994 filing date of the Smith patent. Note that the invention is clearly described in the letter.

12. As discussed above, the period from 2 December 1994 to 4 January 1995 was time during which I received the search results, and during which I reviewed these results. I also used this time to seek competent representation by a patent attorney in connection with preparation of the parent to the subject application.

13. As discussed above, I met with my attorney in connection with preparation of a patent application on 4 January 1995. After this meeting with my attorney, it was necessary for me to prepare documentation in connection with an interview to be held with my attorney. Once the documentation was completed, I met with my attorney on 22 January 1995. I sent a tape of an interview to my attorney for transcription on 10 February 1995. I made partial payment to my attorney for preparation of a patent application on 23 February 1995 and received faxed figures for the patent application from my attorney on 28 February 1995. I provided my comments to my attorney on 5 March 1995 and the parent application from which this application is a continuation was filed on 6 March 1995. I have attached hereto Exhibits evidencing all of the foregoing.

14. I diligently worked toward the reduction of practice of the invention to which the application relates from the time of conception to at least until the submission of present of the subject application to the Patent Office.

15. I hereby declare that all statements made here and of my own knowledge are true and that all statements made on information are believed to be true; and further that these statements were made with the knowledge that willful false statements and like so made are punishable by fine or imprisonment or both, under section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issue thereon.


TYLER PEPPEL

20 APR 07

DATE

EXHIBITS

For Declaration of Tyler Peppel

THE WORLD OF E-CAR

e
card

November 9, 1994

DOCUMENT BC1
11/9/94

To: Naomi Tobita, Bandai cc: Hikaru Sasahara, IMA
From: Tyler Peppel
Re: E-Card (Electronic Trading Card) Project

Note: We made up this new code name (E-Card) to to describe any product which uses the "Electronic Trading Card" concept discussed at our meeting last Monday. We propose that it become a confidential code name between our companies.)

We are very pleased to submit this preliminary business proposal to Bandai for the E-Card project. We have written this proposal with the hope that we will become business partners in the following efforts:

- developing the E-Card engine
- developing E-Card products using Bandai content and characters
- licensing the E-Card engine to non-competing companies and providing development services to those companies

The goal of our partnership is to make E-Card a worldwide standard for creative electronic communication between children, families and business people.

Longer term, E-Card is a step toward personal electronic communications on-line.

We have three versions of the proposal: A, B, and C. All versions assume the production schedule we discussed at our meeting Monday November 7. Dollar estimates do not include withholding tax. These proposals are preliminary and all terms are open to discussion.

Version A
(Non-exclusive relationship)

Proposal "A" assumptions:

- C-Wave grants Bandai a non-exclusive license to the E-Card engine for a per unit royalty
- Bandai pays C-Wave for custom enhancements to the E-Card engine and for integration of Bandai content

Sailor Moon development cost: \$380K

2nd product with same functionality, different content: \$270K

3rd product with same functionality, different content: \$240K

Per unit royalty retail: \$5

Per unit royalty bundled: \$3

Version B

(Exclusive Partnership for Japan)

Proposal "B" assumptions:

- Bandai and C-Wave have an exclusive partnership for E-Card in Japan
- Bandai and C-Wave share the development cost of a Japanese version of the E-Card engine
- Bandai and C-Wave share in Japanese E-Card engine revenues
- Bandai approves all third-party E-Card licenses in Japan

Sailor Moon development cost: \$420K

2nd product with same functionality, different content: \$270K

3rd product with same functionality, different content: \$240K

Per unit royalty retail: \$5

Per unit royalty bundled: \$3

Fee for Japan-only exclusivity on the concept: \$200K

Version C

(Exclusive Worldwide Partnership)

Proposal "C" assumptions:

worldwide pa

with worldwide partnership

- Bandai and C-Wave have an exclusive worldwide partnership for E-Card. C-Wave does not discuss the E-Card concept with other companies.
- Bandai and C-Wave share the development cost of the E-Card engine
- Bandai and C-Wave share in E-Card revenues worldwide
- Bandai approves all third-party E-Card licenses

Sailor Moon development cost: \$420

2nd product with same functionality, different content: \$270

3rd product with same functionality, different content: \$240

Per unit royalty retail: \$4

Per unit royalty bundled: \$2.50

Fee for worldwide exclusivity on the concept: \$500K

LAWRENCE E. LAUBSCHER, SR.
LAWRENCE E. LAUBSCHER, JR.

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December 2, 1994

M. Patricia Thayer
Howard, Rice, Nemirovski,
Canady, Robertson & Falk
Three Embarcadero Center
Seventh Floor
San Francisco, CA 94111

COPY

VIA FEDERAL EXPRESS

Re: Patentability Search on
E-CARD
Our Job No. 7399

Dear Patty:

In response to your telefax of November 28, 1994, we have now completed our patentability search on the above matter.

Briefly, the subject invention relates to an E-card software architecture used for an electronic trading card. The system has the capability of card making, card trading, card gaming and card collecting. The system uses card shops to make new cards, edit existing cards and layer different cards. Card activities include games/puzzles, mailing, and learning. Card trading can be accomplished through either floppy disk, on-line on any digital media. The cards could also be collected and organized in albums.

During our search, the following references were noted:

4,890,229	Rudnick	12/26/89
4,951,203	Halamka	8/21/90
4,965,727	Halamka	10/23/90
5,036,472	Buckley et al	7/30/91
5,056,029	Cannon	10/8/91
5,091,849	Davis et al	2/25/92
5,38,043	Rehm	8/16/94
5,356,151	Abecassis	10/18/94

Your attention is directed to the patent to Halamka No. 4,965,727 which discloses a computer card formatted by the user

- Bandai and C-Wave have an exclusive worldwide partnership for E-Card. C-Wave does not discuss the E-Card concept with other companies.

M. Patricia Thayer
December 2, 1994
Page 2

computing machine. The composite communication is transmitted by the user to a recipient through a computerized central mail exchange apparatus or created on removable, transportable magnetic media, such as a floppy disk. The disk could be inserted into and read by the recipient's audio and visual display device.

The Buckley et al patent No. 5,036,472 discloses a "machine for vending greeting cards or other personalized or customized products (which) includes audio and video presentations of available products and options available to a customer, provisions for payment and apparatus for automatic delivery of products. Base products such as preprinted forms are stored for selective transfer by a robot device to modifying apparatus such as a printer, modified products being delivered to a delivery receptacle, all operations being under computer control and being changeable as desired for adding or substituting new forms of products." (Abstract)

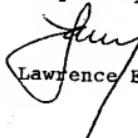
The remaining references were noted as being of general interest.

The field of search included:

Class 273, sub. 153R;
Class 364, subs. 227.1, 410, 419.2 and 916.5; and
Class 395, sub. 919.

Copies of the cited references are enclosed, and our debit note is attached.

Very truly yours,


Lawrence E. Laubscher, Jr.

LEL,jr/TB:ms

Enclosures

TRAIL LOG

SUCCESS

✓ 1/1/95

9:00 AM - 10:00 AM
9:10

✓ 9:35 AM KRTZ TM ^{9:35}
UNIVERSITY NAVIGATOR
LOGO

✓ 1/3/95

12:50 - 1:00

✓ FOLLOWING TM T. McNEIL / MSG 2021/6
XILINX

✓ 1/4/95 P. THOMAS

TYLER PEPPER - NYKOMA - ELECTRONIC GRAFTING CARDS

BENDIX - POWER RANGERS

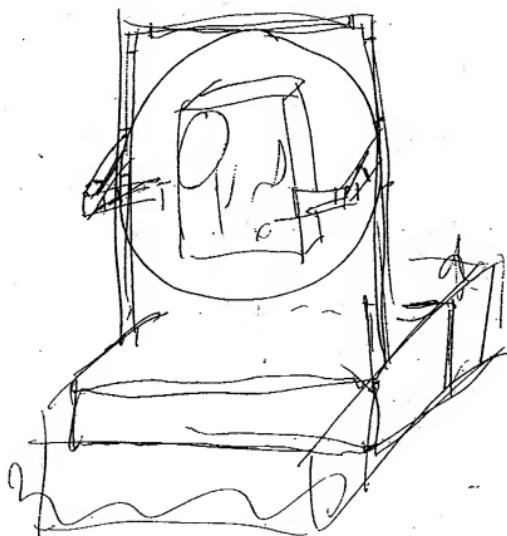
PAT. SEARCH

FILED 1984

GRAFTING CARDS

PAIR ART
INFR INVESTIGATOR

SW PRODUCT THAT CLOUTED TEARING CARDS



2.10.95

Hi MICHAEL -

HERE IS THE E-CARD TAPE
FOR TRANSCRIPTION.

- Thy Gr.

MG Strategies for patent protection for electronic trading card

5

MG Do you want to start with the review of the prior art or do you want to start with the review of the concepts I found in your presentation in the world of e-card?

10 TH Why don't we start with the prior art. That way, I'll have a better understanding of how this relates to issues that come up....

15 MG Okay, and although this tape recording may be transcribed, the opinions I render on this, just for your understanding, are not written opinions, but they're simply oral opinions, and that even though they are transcribed on the writing, they're not the equivalent of a written opinion. If I were to make a written opinion, it would take a considerable amount of analysis of what you've already given. So, just going through this, there is a paper called the 20 21st story level one printed in full format. And on here, there are a couple of things highlighted, one of which is already made available, electronic press kits. This basically -- this seems to me that these are similar to what's ... which we'll talk about. The other thing in here that was highlighted is something about a video 25 tape for sporting events, and in it including electronic trading cards featuring players, photos and stats from their latest season, and a

sports almanac CD. But it doesn't give any more detail about what these electronic trading cards are, so it's hard to tell from this article.

5 TH The Sports Illustrated CD I know of, and the cards are screens and information much as you would get if you scanned in a traditional trading card so you could display them on a computer.

10 MG So, it's just basically a scanned-in trading card. There's nothing nifty about that. Certainly, people could scan in anything nowadays and pure out the scanning. It alone is not novel or would not create a problem. We have here one, Patent No. 5,120,589. This is called a Collectible Promotional Card. This is irrelevant to what you're doing. This is simply a method of printing a photographic image on the laminate. There's another one here called Trading Cards and Method 15 of Concealing and Revealing Information. This is Patent No. 5,282,651. Again, this is irrelevant. These are trading cards that are interactive with the user by concealing under a coding a secondary show. This is like a scratch card.

20 TH Yes, like a scratch card.

MG That's irrelevant. We have here now one that's a little bit more relevant. 5,036,472. This is Buckley. This is Computer Controlled Machine for Vending Personalized Products or the Like. The 25 relevance of this is that it provides you the ability on screen to compose a greeting card, and then print it on the spot. So this electronic vending machine, the way I see it, the machine for

vending greeting cards or a personalized customized products including provisions for a payment. It also gives you the option to choose and modify and print things in. So, generation of an electronic greeting card is sort of known. All I see this thing is providing in terms of over the prior art would be like computer art would be they give you forms. They give you electronic forms that you can select the form and select the fill-in information, and then it's printed on the spot so it's an integrated unit for printing out a form. I don't think that's particularly relevant to trading cards. I think you're going to be alone in that.

Before we get to the 2 big Lemke files, I'll also go through these other ones very quickly. Rudnick, Patent No. 4,890,229, Electronic Baseball Card. It's basically a calculator that stores sports information. It's irrelevant.

Cannon, Patent No. 5,056,029. Method and Apparatus for Manufacturing and Vending Social Expression Cards. This is very similar to the Buckley case, point-of-sale card manufacturing and vending.

TH Seems extremely similar to me. I was curious as to why those 2 were so similar.

MG Well, let's see whether one was cited in the other. Here's Buckley. Yeah, it seems like the same thing. Okay, so this is Buckley and this is Cannon. Cannon is the later one. So, Cannon might cite Buckley,

but it doesn't. They don't seem to cite the same prior art -- some of the same prior art is cited. You understand in the patent that when the patent examiner does a search, he looks at certain patents, and those are listed on the front page of the patent. Some of them are similar but what's interesting is that because the filing dates -- the filing dates are almost a year apart, but the issue dates are very close, just a few months apart. Most likely what happened is that these were both pending in the Patent Office at the same time, they had different examiners. And so one examiner examined one, one examined the other, and they both came out, and they probably interfere with each other. So, and as I said, the examiner's did cite some of the same cases like Rosen..... was the same. I note that in the Cannon case, the Lemke patent was also cited. That's the '203 patent. So, whatever Cannon is doing is something in addition to what Lemke is doing -- something different. But Cannon and Buckley are very, very similar. And I haven't studied the claims in any detail, because they're not really relevant to what you're doing, I believe. That can be done later if you want.

We have Abel Cassis, Abe Cassis. Gameboard Scale Model Game. 5,356,151. It's just a gameboard. It's totally irrelevant to what you're doing.

Ren, Cryptographic Guessing Game, 5,338,043. This may be relevant in the sense that it would apply to a particular application of a trading card. This is a particular type of game where you put certain -- you have ciphertext and you have indicia. And the ciphertext is an

encrypted message, and so you have hidden information, and it's in a puzzle form which one of several players can play. So you form a pair of words that perform a guess pair. So, the...

5 TH (asked a question)

MG Yes, it's a software. It's a puzzle game. So, the way this might be relevant is this might be a particular type of game that might be played using your trading cards. Because you do have -- you could 10 use cards. Sismatical types of messages and cyprement schemes, development solution and conforming means are disclosed. So, some of these things could be like a trading card. Let me look at the claim real quick. Okay, so the claim, method of making the invention, first of all, column 32, obtain the message, generate a cypher, and cypher 15 the message to create a cypertext, print or display the puzzle, using the cypher print a conforming device or act as an interactive conforming device during solving. Some of these things, I think, are quite similar to what you might do with your trading cards. And then the claim is just this very, very long claim which would mean 20 that it's a very narrow invention, most likely. But the claim involves you provide a game having cypertext and plain text so that would be the hidden message and the clue, for example. Display the cypertext and display the developing solution, but keep the plain text hidden, guess a playing character, recording the playing character... it's a 25 very specific game. I think we've spent enough time on it. It's not what you're doing, but it could be used with what you're doing.

Finally, we before we get to Lemke, Davis et al., Computer Image Production and System Utilizing First and Second Networks for Separately Transferring Control Information and Digital Image Data, 5,091,849. I don't find this to have any relevance at all with what you're doing. It's simply a computer imaging system, largely to produce animation. So, put that aside.

Now, let's talk about the Lemke... Lemke has two cases. He filed a patent application, and the patent examiner said that there are two inventions. One invention is sending information over a network, and the other one is the greeting card. So, in both cases, they were rejected initially and they were both allowed. The more relevant case -- let me just find out what that one is -- The more relevant case is the greeting card. Let me see which one of the two that is.

Okay, that's the Lemke Computer Card, formerly 951,203. Claim 1 is what's instructive here. It's a greeting card created by and readable by a digital computer machine. So it requires a magnetic medium means that has to be a magnetic card or magnetic disk, or something magnetic. But it requires a magnetic medium means for storing a plurality of messages and a plurality of audio selections. So the messages would be a visual message that would be displayed, the audio would be audio, and a control file that could configure the computer machine. Now, the significance of this is that the card has to have, or the media has to have a audio message linked to a visual message. Because when they prosecuted the patent, and argued with the Patent Office, one basis for distinguishing over the prior art was this linkage. So, there has to be this audio and visual linkage

multimedia and the card has to contain a control file that will grab control of the computer and boot it up and line. So, that's like a run time. So that's the card. And then it has to have a computer with an operating system, a display and audio means, and the means to read the magnetic media. So it's a standard computer. And the control file configured to be read by the original machine... That's basically it. And then synchronously, reading the audio selection and the output of the audio selection through the audio generation synchronously with the output of the preselected message. So that's key to this then, is audio and video linked on a run time on a magnetic media and a computer system. That's the Lemke, the main one.

TH When you summarized it there, you didn't say anything about the subject or the content of the greeting card.

MG Well, it is a greeting card.

TH How much is his patent for the audio and video linked message on magnetic media in general? Or only when used in the form of a greeting card?

MG ...when used in the form of a greeting card. He actually discusses what he means by a greeting card. Let me just quickly find that section, Because when they file a patent application, the patent office does a search and then as a result, they make a rejection or they make an acceptance of the claims, and then they make

recommendations for changes in the claims. In this case, they went to the Board of Appeals. They basically -- write to the Board of Appeals and when they filed their appeal brief, at that point, the Examiner decided not to fight it, because the Examiner's don't like to get reversed. So he caved in and allowed the case. But during the course of fighting with the patentee, or the patent applicant, the Examiner made certain arguments about this prior art. And in response, they talked about what their message would be. So let me just read a couple of quotes to you, and I'll give you pointers to where they are.

So, we're looking at the response dated January 10, 1989. This is response prepared by John Lemke. It is either the inventor's son, father or brother. John D. is the inventor, and John E. is the patent lawyer.

TH A family operation.

MG Indeed. In the remarks, basically it says, "it's a magnetic media containing a user preselected message, a user preselected audio, and a control file." So this is, again, what we've talked about. Now, let's look for the description. "Upon receipt, the user removes the physical device in the form of magnetic media and inserts it into a digital computing machine that's configured by the control file. When used by the computer under direction of the control file to create the greeting card as synchronized audio and visual output using peripheral devices." Okay, that's what he says.

TH ...as far as he goes in terms of a greeting card?

5 MG In that particular round, He got more rejections. And so he's going to make more statements. And now there's a response dated July 14, 1989. It's a later response, and he apologizes because he didn't understand the prior art. He thought the prior art had a later filing date. He was wrong, so he apologizes. And he characterizes the prior art. I'm just going to go to where he talks about the greeting cards here. This is on page 3. "Applicant's invention is very different from 10 '180 which is the prior art. Uses digital data as

TH ...as far as he goes in terms of a greeting card?

MG In that particular round. He got more rejections. And so he's going to make more statements. And now there's a response dated July 14, 5 1989. It's a later response, and he apologizes because he didn't understand the prior art. He thought the prior art had a later filing date. He was wrong, so he apologizes. And he characterizes the prior art. I'm just going to go to where he talks about the greeting cards here. This is on page 3. "Applicant's invention is very different from 10 '180 which is the prior art. Uses digital data as operated upon by the CPU to generated audio signals to an output device. They do not rely on prerecorded audio data. Applicant's invention actually creates the audio data in real time each time it is exercised.

15

TH I remember this in reading the original patent. See, I haven't seen the... what's this called again?

MG This is the file history or the prosecution history?

20

TH Okay, I read the patent, and I noticed that he did seem fixated on this idea of generating ... I don't know if you remember, but early he said tone generators. That was about as sophisticated as the ...

25 MG He repeats it in the patent, too.

TH Which is obsolete now, although you and I talked about that --
information or technology

MG Okay, so again he's contrasting that. Now, we do on to the next office
5 action. At this point, he is issued and allowed. So, it appears that the
description of what he meant by greeting card is actually in the other
application. So that's this one, the '203. Let's look at the '727. The
'203 was basically a divisional, and the case 4,965,727 was the
parent case. Now, what we mean by a divisional is that when he
10 filed this parent case, the examiner found that there were two
separate inventions and split one off and said "we're only going to let
you get one. If you want to file the other one, then you got to go
ahead..." And so, let's look through this one now. Again, this is the
'727 case. And find that language where he talks about it. All right.
15 So here's where he's talking about why they should not be splitting
the two cases. In the office action, the examiner's made a
requirement for a restriction. Drawn to a system for processing and
supervising the plurality of composite intercourse and social
communications selections of a product, and another group drawn to
20 a computer greeting card, a process. So, basically he sees that these
are separate. Now they're going to argue



Oompala

INCORPORATED

109 West Street
Sausalito, California 94965

415 332 4752
Fax 415 332 7207

Date: February 23, 1995
To: Michael Glenn
From: Tyler Peppel
Re: an article for you
Number of Pages Including this page: 2

Dear Michael:

Attached is an article from Scientific American I thought you might find interesting.

Also, I'm sending you a check today for \$2000 as a payment for the patent application for electronic trading cards. As we discussed, I assume the balance will be due 60-90 days after the application is filed. Please let me know if that is acceptable to you, if not, I'm sure we can work something out.

Best regards,

Tyler Peppel

reactions. University of Nebraska scientists found that blood serum from six of eight individuals allergic to Brazil nuts produced antibodies to the soybeans, suggesting the possibility of an adverse reaction. The company is now seeking another means of enhancing methionine levels.

Despite an incident or two, U.S. agri-

cultural biotechnology flourishes. Rifkin would have an easier job if he moved to Stuttgart. Europe has not provided a similar welcome mat for biotech engineered crops, even though it does not wish to be left behind in the emerging industry. In December the European Union voted to allow limited testing of BST but opted to continue a ban on commercial

use of the compound through 1999. Europe, too, may lack the American flair for public relations. In the U.S., Calgene has even pried members of Congress with bacon, lettuce and tomato sandwiches—all made with the Flavr Savr. Natural selection in the marketplace depends heavily on recombinant image making.

—Gary Stix

GIF Us a Break

It was all over before the arguments really even began. On December 29, CompuServe announced that it would henceforth charge royalties on the Graphics Interchange Format, or GIF. Electronic yowls of protest surged over computer networks—at least among those not too busy drinking, digesting or otherwise holiday making to notice. The GIF file is the networked world's equivalent of the photographic print. It encodes millions of images on disk drives across the globe. Was the whole on-line community to be forced to scrape together its Christmas money from Santa and turn it over to CompuScrooge?

Not this time. Unisys, which owns the patent whose infringement had forced CompuServe to demand royalties in the first place (don't worry, these complications will be explained shortly), clarified in early January, it wanted royalties only from for-profit developers of software that encoded or decoded GIF files. Unisys had no intention of charging for GIF storage or transmission. It wanted small royalties, about 1 percent of the average selling price. And it would not charge anybody who had developed a program before 1995—that is, before CompuServe's announcement. Yowls dimmed to grumbles, and net arguments drifted back to sex and politics as usual.

Next time, however, things could be different. Although the circumstances of the GIF case were by no means typical, the application of slow-moving patent protection to fast-moving software development carries the risk that someday someone really will decide to hold the networked world to ransom. Certain net-watchers now argue that solving the intellectual-property problems created by software will require a third form of legal protection for ideas—not copyright, not patent, but something different.

The trouble with software patents is that they are sweeping and slow. A patent grants ownership of an idea. Full stop. It doesn't matter if somebody holed up in a cave in Tibet has reinvented your idea from thin air and incense smoke. If it's your idea, they have to pay. But a patent takes between a year and a half to two years to issue. Complicated software patents can take longer. In the U.S. patent applications are kept secret until granted.

But two years is also the life cycle of most software products. The Internet currently quadruples in size every two years (it now encompasses more than three million computers). Some parts of the networked world grow even faster. From 1992 to 1994, for example, the World Wide Web—linking text, pictures, video and sound—grew from hundreds of sites to hundreds of thousands. In 1994 the U.S. Patent and Trademark Office approved about 4,500 software patents. Now imagine what might have happened—what might still happen—if a patent submitted in 1992 covered a key component of the Web.

On the other side of the intellectual-property fence, copyright risks missing the point of software. It was de-

signed to cover the text of a document or the look of an illustration rather than the function of a piece of machinery—or a piece of software. Yet it is precisely function that gives value to software. True, copyright is automatically granted as soon as the item is "published." But given a choice between the overweening market power of a patent and the lightweight speed of copyright, which would you think software developers would choose? (Hint: The U.S. Patent and Trademark Office granted only about half as many software patents in 1993 as it did in 1994.)

Some experts think there is a better way. Pamela Samuelson of the University of Pittsburgh Law School, Jerome H. Reichman of Vanderbilt Law School, Mitchell D. Kapor, founder of Lotus Development, and Randall Davis of the Massachusetts Institute of Technology recommend creating a middle ground for software. Ownership would begin immediately, without the long deliberations required for patents. It would also last for only a few years rather than the 19 years of a patent or the 75 years of a copyright. The interesting question, however, and the one expressly left open for debate by their proposals—published in the December 1994 *Columbia Law Review*—is what precisely the law should give ownership to.

Copyright grants control over the text of a document but not over the ideas expressed therein. Patents cover ideas for making things with a given function. Defining middle ground between idea and expression to fit the middle ground of intellectual property should be no mean feat. Presumably no one could simply copy a piece of software. But what if two researchers come up with the same idea independently? What if only part of the software is copied?

Not easy questions to answer. But they are well worth debating, given the legal carnage that patents could unleash in the software industry. Of course, it is worth remembering that bad laws are not the only reason bad things happen. People can just plain mess up. And while CompuServe's Christmas message certainly highlights the dangers of less than perfect law, the actual facts of the case involve a lot of just plain messing up.

Here are the facts. In 1985 Sperry, which merged with Burroughs to form Unisys, was granted a patent on a method of compressing data called the Lempel Zev Welch (LZW) algorithm. CompuServe did not seem to notice. In 1987 CompuServe began developing the GIF to store and transmit graphic images based on—you guessed it—the LZW algorithm. Unisys did not seem to notice. From 1987 to 1993 CompuServe blithely encouraged programmers to use the GIF. Many did. In 1994 when Unisys forced CompuServe to pay royalties on LZW for GIF files, everybody would have noticed had the two tried to pass the cost of those royalties on to the network. Fortunately, common sense and humility prevailed, at least this time.

—John Browning